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Theodore W. Houston

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EXAMINER

THOMAS, TONIAE M

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* THEODORE W. HOUSTON  
and AMITAVA CHATTERJEE

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Appeal 2009-014366  
Application 10/054,957  
Technology Center 2800

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Before JASON V. MORGAN, MICHAEL R. ZECHER, and  
BRUCE R. WINSOR, *Administrative Patent Judges*.

MORGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

### *Introduction*

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 10 and 25. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

### *Exemplary Claim*

10. A transistor which comprises:

(a) a semiconductor substrate having first and second spaced apart source/drain regions therein; and

(b) a channel region between said source/drain regions in said substrate having a relatively low  $V_T$  central region between said source/drain regions and relatively high controlling  $V_T$  regions adjacent to said source/drain regions, said channel region having an implanted one of a positive or negative  $V_T$  dopant intermediate said source/drain regions and having an implanted one of a negative or positive  $V_T$  dopant adjacent said source/drain regions, the opposite of said dopant in said central region;

wherein controlling  $V_T$  is defined as that region which is the least conducting region and thus controls the current flow.

## ISSUE

Is the 35 U.S.C. § 102(b) rejection of claims 10 and 25 unsustainable because the Examiner erred in finding that Jones (U.S. 4,212,683) discloses a channel region between source/drain regions in a substrate, the channel region having a relatively low  $V_T$  central region between the source/drain regions and relatively high controlling  $V_T$  regions adjacent to the source/drain regions?

### ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments (Appeal Brief) that the Examiner has erred.

We disagree with Appellants' contentions. We adopt as our own the findings and reasons set forth by the Examiner in the action from which this appeal is taken and in the Examiner's Answer in response to Appellants' Appeal Brief. We find the Examiner's Answer fully addresses Appellants' contentions (Ans. 3 – 6; *see particularly* fn. 1 – 7) and we concur with the conclusions reached by the Examiner.

We agree with the Examiner (Ans. 3 – 6) that Jones discloses the disputed claim limitation.

### CONCLUSIONS

The Examiner has demonstrated that claims 10 and 25 are unpatentable because the Examiner did not err in finding that Jones discloses a channel region between source/drain regions in a substrate, the channel region having a relatively low  $V_T$  central region between the source/drain regions and relatively high controlling  $V_T$  regions adjacent to the source/drain regions.

### DECISION

We affirm the Examiner's decision rejecting claims 10 and 25.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

### AFFIRMED

Appeal 2009-014366  
Application 10/054,957

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